

CLAIMS

1. (Currently amended) An FM transmitter comprising:
 - a processor configured to receive text data associated with an audio signal, ~~and to convert the text data into digitally encoded speech, and to encode the audio signal and the digitally encoded speech according to a FM standard into a FM digital signal;~~
 - ~~a signal combiner configured to combine the digitally encoded speech with the audio signal into a combined signal;~~
 - ~~an FM encoder~~ a converter configured to ~~encode the combined~~ convert the FM digital signal according to an FM standard into an analog FM signal; and
 - a transmitter configured to transmit the analog FM signal.
- 2.-3. (Canceled)
4. (Currently amended) ~~An~~ The FM transmitter according to claim 2 1, further comprising:
 - ~~an analog FM stereo encoder configured to generate an analog FM signal as the FM signal;~~
 - ~~a digital to analog converter coupled to the processor and configured to convert the modulated RDS signal to an analog modulated RDS signal; and~~
 - a band-pass filter configured to filter the analog ~~modulated RDS~~ FM signal to exclude signal components outside of a range of frequencies according to an RDS standard;
 - ~~wherein the signal combiner is configured to combine the band pass filtered analog modulated RDS signal into the analog FM signal.~~
5. (Canceled)
6. (Currently amended) ~~An~~ The FM transmitter according to claim 1, wherein:
 - the ~~signal combiner~~ processor is configured to time-division multiplex the digitally encoded speech and the audio signal to generate the ~~combined~~ FM digital signal.

7. (Currently amended) ~~An~~ The FM transmitter according to claim 6, wherein the processor is a programmed processor comprising code to control the processor to convert the text data into the digitally encoded speech.

8. (Currently amended) ~~An~~ The FM transmitter according to claim 6, wherein:
the processor is configured to receive a digital audio signal as the audio signal; and
the ~~signal combiner processor~~ processor comprises multiplexing circuitry ~~in the processor to time-~~
division multiplex the digital audio signal and the digitally encoded speech to generate the
~~combined~~ FM digital signal.

9. (Currently amended) ~~An~~ The FM transmitter according to claim 1, wherein:
an auxiliary audio device is configured to generate the audio signal; and
the processor is a control processor of the auxiliary audio device.

10. (Currently amended) ~~An~~ The FM transmitter according claim 9, wherein the auxiliary audio device is a device selected from a group consisting of a CD player, a CD-MP3 player, a universal satellite receiver, and a digital audio broadcast receiver.

11. (Currently amended) ~~An~~ The FM transmitter according to claim 10, further comprising a wireless remote control receiver coupled to the auxiliary audio device, the wireless remote control receiver to receive commands to control the auxiliary audio device and to receive commands to select text data to be transmitted in the FM signal.

12. (Currently amended) ~~An~~ The FM transmitter according to claim 1, further comprising:
a housing to which the processor, ~~the signal combiner, the FM encoder, the converter,~~
and the transmitter are mounted, the housing comprising:
an audio input to receive the audio signal from an auxiliary audio device; and
a data input to receive the text data from the auxiliary audio device;
wherein the housing is physically distinct from the auxiliary audio device.

13. (Currently amended) A transceiver, comprising:
~~a receiver configured to receive a broadcast audio transmission comprising text data and an audio signal;~~
a radio data system (RDS) modulator configured to generate a modulated text data signal in response to the a broadcast audio transmission including text data and an audio signal, the text data being descriptive of the audio signal;
a frequency modulation (FM) encoder configured to generate an FM encoded audio signal in response to the audio signal;
a signal combiner configured to combine the modulated text data signal and the FM encoded audio signal into a combined signal; and
an FM transmitter configured to transmit the combined signal.

14. (Currently amended) The transceiver of claim 13, ~~wherein~~ further comprising:
~~the receiver is a satellite audio receiver comprising a processor; and~~
at least one of the RDS modulator, the FM encoder, and the signal combiner are implemented in the processor of the satellite audio receiver.

15. (Currently amended) The transceiver of claim 13, further comprising:
a processor configured to convert the text data into digitally encoded speech and to ~~combine~~ encode the digitally encoded speech and the audio signal into a combined FM digital audio signal; and
a converter configured to convert the combined FM digital audio signal into a combined FM analog audio signal
~~wherein the FM encoder is configured to generate the FM encoded audio signal in response to the combined audio signal.~~

16. (Currently amended) The transceiver of claim 15, wherein the processor is configured to time-domain multiplex the digitally encoded speech and the audio signal to generate ~~to combined~~ the combined FM digital audio signal.

17. (Previously presented) The transceiver of claim 13, further comprising:

a housing in which the receiver and at least one of the RDS modulator, the FM encoder, the signal combiner, and the FM transmitter are mounted.

18. (Previously presented) The transceiver of claim 17, wherein each of the RDS modulator, the FM encoder, the signal combiner, and the FM transmitter are mounted in the housing.

19. (Currently amended) A handheld audio player, comprising:
a storage device;
a processor configured to receive an audio signal and ~~associated~~ text data descriptive of the audio signal from the storage device, to generate a modulated text data signal from the text data, to encode the audio signal into an FM encoded audio signal, to combine the modulated text data and the FM encoded audio signal into a combined audio signal, and to convert the combined audio signal into an FM signal; and
~~an audio output configured to output the audio signal in response to the processor; and~~
a frequency modulation (FM) transmitter configured to transmit the ~~audio~~ FM signal ~~and the text data.~~

20.-21. (Canceled)

22. (Previously presented) The handheld audio player of claim 19, wherein:
the handheld audio player is one of a compact disc (CD) player, a flash player, an MP3 player, and a hard disk drive (HDD) jukebox.

23. (Currently amended) The handheld audio player of claim 19,
wherein~~the~~ processor is configured to convert the text data into digitally encoded speech and to combine the digitally encoded speech and the audio signal into a combined digital audio signal;
wherein a converter is configured to convert the combined audio signal into a combined analog audio signal; and
wherein the FM transmitter is configured to transmit the combined analog audio signal.

24. (Currently amended) The handheld audio player of claim 23, wherein the processor is configured to time-domain multiplex the digitally encoded speech and the audio signal to generate to combined digital audio signal.